STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0111686
Owner:	Continental Cement Company, LLC
Address:	10107 Highway 79, Hannibal, MO 63401
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Continental Cement Company, LLC
Address:	10107 Highway 79, Hannibal, MO 63401
Legal Description:	See page 2
Receiving Stream:	Unnamed Tributary to Mississippi River (U)
First Classified Stream and ID:	Mississippi River (P)(00001) 303(d) list
USGS Basin & Sub-watershed No.:	(07110004-030003)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

See page 2 and 3

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

April 8, 2005 February 10, 2006
Effective Date Revised Date

Doyle Childers, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

April 7, 2010
Expiration Date

G. Irene Crawford, Director, Northeast Regional Office

FACILITY DESCRIPTION (continued)

Outfall #001 – Domestic Waste - SIC #4952

Extended aeration/effluent to a detention basin then flows to lift station at outfall #003/lift station pumps to detention pond at outfall #006/sludge holding tank/sludge disposal is by contract hauler or composted on site.

Design population equivalent is 150.
Design flow is 15,000 gallons per day.
Actual flow is 9,000 gallons per day.
Design sludge production is 2.7 dry tons/year.

Legal Description: SE ¼, NW ¼, Sec. 2, T56N, R4W, Ralls County

Outfall #002 – Cement Kiln Dust Management Area (Monofill) & the Syn-Gyp storage pile - SIC #3241

Storm water runoff/sedimentation pond/sheet flow to outfall.
Design flow rate over 1 MGD (10-year, 24-hour rainfall event = 5.0 inches)

Legal Description: NE ¼, NW ¼, Sec. 2, T56N, R4W, Ralls County

Outfall #003 – Northern Industrial Area, Main Processing plant with kiln and fuel operational areas – SIC #3241

Storm water runoff from a series of sedimentation ponds, including, effluent from outfall #001/lift station/lift station pumps to detention pond at outfall #006. Normal recycling operations preclude most stormwater discharges. Therefore discharge monitoring reports entries of “No Discharge” will be typical.

Lift station capacity reached/discharged into Mississippi River.
Design flow rate over 1 MGD (10-year, 24-hour rainfall event = 5.0 inches)

Legal Description: NW ¼, NE ¼, Sec. 2, T56N, R4W, Ralls County

Outfall #004 – Southern Industrial Area and Coal Belt Loading Area - SIC #3241

Storm water run-off/lift station/lift station pumps to detention pond at outfall #006. Normal recycling operations preclude most stormwater discharges. Therefore discharge monitoring reports entries of “No Discharge” will be typical.

Lift Station capacity reached/discharged into Mississippi River
Design flow rate over 1 MGD (10-year, 24-hour rainfall event = 5.0 inches)

Legal Description: SW ¼, NE ¼, Sec. 2, T56N, R4W, Ralls County

Outfall #005 – Pre-law Quarry site with artificial soil program for reclamation – SIC #3241.

Storm water runoff/detention pond/spray irrigation onto artificial soil program area as needed for consumptive irrigation and treated effluent discharge to sub-surface culvert then to surface wet weather ditch during remainder of the time.

Legal Description: NE ¼, SW ¼, Sec. 3, T56N, R4W, Ralls County

FACILITY DESCRIPTION (continued)

Outfall #006 – Sedimentation pond – SIC #3241

Currently for the Wet Cement Production Process - Effluent from lift stations at outfalls #003 and #004, wet cement plant production facility process wastewater and wet raw mill facility process wastewater, storm water from main industrial area/grit chambers/sedimentation pond/recycle to wet cement plant/discharged into Mississippi River. Normal recycling operations preclude non-stormwater discharges. Therefore, discharge monitoring report entries of “No Discharge” will be typical.

Design flow: 3,760,061 gallons per day

Legal Description: SW ¼, NE ¼, Sec. 2, T56N, R4W, Ralls County

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001 - Domestic waste						
Flow	MGD	*		*	once/quarter**	24 hr. estimate
Biochemical Oxygen Demand$_5$	mg/L		45	30	once/quarter**	modified comp. sample
Total Suspended Solids	mg/L		45	30	once/quarter**	modified comp. sample
pH - Units	SU	****		****	once/quarter**	grab
Outfall #002 - Stormwater from Monofill and storage pile (Note 1) Outfall #003 - Northern Industrial Area, Main Processing plant with kiln and fuel operational areas (Note 1) Outfall #004 - Southern Industrial Area and Coal Belt Loading Area (Note 1)						
Flow	MGD	*		*	once/quarter***	24 hr. estimate
Total Suspended Solids	mg/L	50		50	once/quarter***	grab
Oil & Grease	mg/L	15		10	once/quarter***	grab
pH – Units	SU	****		****	once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE April 28, 2006 . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

Outfall #003 - Northern Industrial Area, Main Processing plant with kiln and fuel operational areas						
Total Toxic Organics (Note 2)	mg/L	*		*	once/year***	grab

MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY ; THE FIRST REPORT IS DUE October 28, 2006 . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I & III STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective upon issuance and remain in effect until April 7, 2008. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #005 - Old quarry with artificial soil project (Note 3)						
Flow	MGD	*		*	once/month***	24 hr. estimate
Biochemical Oxygen Demand$_5$	mg/L	*		*	once/month***	grab
Total Suspended Solids	mg/L	*		*	once/month***	grab
Ammonia Nitrogen as N	mg/L	*		*	once/month***	grab
Sulfates	mg/L	*		*	once/month***	grab
Chlorides	mg/L	*		*	once/month***	grab
Oil & Grease	mg/L	*		*	once/month***	grab
Temperature	°C	*		*	once/month***	grab
Conductivity	micromhos/cm @ 25	*		*	once/month***	grab
pH – Units	SU	****		****	once/month***	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY THE FIRST REPORT IS DUE April 28, 2006. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Part I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective April 8, 2008 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #005 - Old quarry with artificial soil project						
Flow	MGD	*		*	once/month***	24 hr. estimate
Biochemical Oxygen Demand$_5$	mg/L		65	45	once/month***	grab
Total Suspended Solids	mg/L	110		70	once/month***	grab
Ammonia Nitrogen as N	mg/L	*		*	once/month***	grab
Sulfates	mg/L	*		*	once/month***	grab
Chlorides	mg/L	*		*	once/month***	grab
Oil & Grease	mg/L	*		*	once/month***	grab
Temperature	°C	*		*	once/month***	grab
Conductivity	micromhos/cm @ 25	*		*	once/month***	grab
pH - Units	SU	****		****	once/month***	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE May 28, 2006. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Part I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #006 – Sedimentation basin – Wet Process Cement Kiln						
Non storm water Flow	MGD	*		*	once/month***	24 hr. estimate
Total Suspended Solids	lbs/day	36		36	once/month***	grab
Oil & Grease	mg/L	15		10	once/month***	grab
pH – Units	SU	****		****	once/month***	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE April 28, 2006. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Part I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #006 – Sedimentation basin (Note 4)- Wet Process Cement Kiln						
Storm water Flow	MGD	*		*	once/quarter***	24 hr. estimate
Total Suspended Solids	mg/L	50		50	once/quarter***	grab
Oil & Grease	mg/L	15		10	once/quarter***	grab
pH – Units	SU	****		****	once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE April 28, 2006. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

Total Toxic Organics (Note 2)	mg/L	*		*	once/year***	grab

MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE October 28, 2006. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Part I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.
** Sample once per quarter in the months of March, June, September, and December.
*** Monitor only when discharge occurs. Report as no-discharge when a discharge does not occur during the report period.
**** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

Note 1 – Any untreated flow from a greater than 10-year, 24-hour rainfall event (5.0 inches for the facility) is exempt from TSS and pH limits, but not the other limits.(40 CFR 411.32 b)

Note 2 - See List on Page 10.

Note 3 - Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.

Note 4 – Effluent limits for pollutants are effective up to 24 hours after a storm event.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

Note 2 - Total Toxic Organics

Acenaphthene
Acrolein
Acrylonitrile
Benzene
Benzidine
Carbon Tetrachloride (tetrachloromethane)
Chlorobenzene
1,2,4-trichlorobenzene
Hexachlorobenzene
1,2-dichloroethane
1,1,1-trichloroethane
Hexachloroethane
1,1-dichloroethane
1,1,2-trichloroethane
1,1,2,2-tetrachloroethane
Chloroethane
Bis (2-chloroethyl) ether
2-chloroethyl vinyl ether
N-nitrosodi-n-propylamine
Pentachlorophenol
Phenol
Bis (2-ethylhexyl) phthalate
Butyl benzyl phthalate
Di-n-butyl phthalate

Di-n-octyl phthalate
Diethyl phthalate
Dimethyl phthalate
1,2-benzanthracene (benzo(a)anthracene)
Benzo(a)pyrene (3,4-benzopyrene)
3,4-benzofluoranthene (benzo(b)fluoranthene)
11,12-benzofluoranthene (benzo(k)fluoranthene)
Chrysene
Anthracene
1,12-benzoperylene (benzo(ghi)perylene)
Fluorene
2-chloronaphthalene
2,4,6-trichlorophenol
Parachlorometa cresol
Chloroform (trichloromethane)
2-chlorophenol
1,2-dichlorobenzene
1,3-dichlorobenzene
1,4-dichorobenzene
3,3-dichlorobenzidine
1,1-dichloroethylene
1,2-trans-dichloroethylene
2,4-dichlorophenol
1,2-dichloropropane (1,3-dichloropropane)
2,4-dimethylphenol
2,4-dinitrotoluene
2,6-dinitrotoluene
1,2-diphenylhydrazine
Ethylbenzene
Fluoranthene
4-chlorophenyl phenyl ether
4-bromophenyl phenyl ether
Bis (2-chloroisopropyl) ether
Bis (2-chloroethoxy) methane
Methylene Chloride (dichloromethane)
Methyl Chloride (chloromethane)
Methyl bromide (bromomethane)
Bromoform (tribromomethane)
Dichlorobromomethane
Chlorodibromemethane
Hexachlorobutadiene
Hexachlorocyclopentadiene
Isophorone
Naphthalene
Nitrobenzene
2-nitrophenol
4-nitrophenol
2,4-dinitrophenol
4,6-dintro-o-cresol
N-nitrosodimethylamine
N-nitrosodiphenylamine
Phenanthrene
1,2,5,6-dibenzanthracene (dibenzo(a,h)anthracene)
Indeno (1,2,3-cd) pyrene
(2,3-o-phenylene pyrene)
Pyrene
Tetrachloroethylene
Toluene
Trichloroethylene
Vinyl Chloride (chloroethylene)
Aldrin
Dieldrin
Chlordane (technical mixture and metabolites)
4,4-DDT
4,4-DDE (p,p-DDX)
4,4-DDD (p,p-TDE)
Alpha-endosulfan
Beta-endosulfan
Endosulfan sulfate
Endrin
Endrin aldehyde
Heptachlor
Heptachlor epoxide (BHC hexachlorocyclohexane)
Alpha-BHC
Beta-BHC
Gamma-BHC
Delta-BHC (PCB polychlorinated biphenyls)
PCB-1242 (Arochlor 1242)
PCB-1254 (Arochlor 1254)
PCB-1221 (Arochlor 1221)
PCB-1232 (Arochlor 1232)
PCB-1248 (Arochlor 1248)
PCB-1260 (Arochlor 1260)
PCB-1016 (Arochlor 1016)
Toxaphene

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
   (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
      (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
      (2) controls any pollutant not limited in the permit.
   (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
   (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

   The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.

3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.

4. Changes in Discharges of Toxic Substances

   The permittee shall notify the Director as soon as it knows or has reason to believe:
   (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
      (1) One hundred micrograms per liter (100 µg/L);
      (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
      (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
      (4) The level established in Part A of the permit by the Director.
   (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

5. Report as no-discharge when a discharge does not occur during the report period.

6. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities
   (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
   (b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids from the lagoon. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

C. SPECIAL CONDITIONS (continued)

7. Outfall #005 – The storm water from the detention pond shall not be land applied to areas outside of the artificial soil program area or outside of the watershed for the sedimentation basin.

8. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

   (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
   (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
   (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
   (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
   (e) There shall be no significant human health hazard from incidental contact with the water;
   (f) There shall be no acute toxicity to livestock or wildlife watering;
   (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
   (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

9. Outfall #005 – Permittee shall conduct special annual sampling at the sedimentation pond impacted by the artificial soil reclamation project. Sampling shall be conducted in June with sample results submitted by August 28th. The sampling will be to collect and analyze for the following:

Aluminum, total recoverable	Mercury, total recoverable
Antimony, total recoverable	Nickel, total recoverable
Arsenic, total recoverable	Selenium, total recoverable
Barium, total recoverable	Silver, total recoverable
Beryllium, total recoverable	Sulfate, as SO_4
Boron, total recoverable	Thallium, total recoverable
Cadmium, total recoverable	Zinc, total recoverable
Chromium, total recoverable	Hardness
Copper, total recoverable	Manganese, total recoverable
Iron, total recoverable	pH
Lead, total recoverable	

D. Schedule of Compliance

1. The permittee shall submit an engineering report by April 8, 2006 that documents decisions made relevant to facility upgrades for outfall 005.

2. The permittee shall submit plans and specifications regarding upgraded wastewater treatment facility by April 8, 2007.

3. The permittee shall complete construction and place upgraded facilities in operation by April 8, 2008.